**In the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**ListingofClaims**

1. (Original) A method for handling mobile database overflow, registering an un-registered mobile user located in a location area, comprising the steps of:

obtaining a registration request from a first mobile user;

determining whether the database of a visitor location register (VLR) is full;

registering the first mobile user to a home location register (HLR) if the database of the VLR is not full;

temporarily storing user data of the first mobile user in the VLR;

translating the location information of a second mobile user registered in the VLR into a second location code if the database of the VLR is full;

transferring the registration request and the second location code to the HLR;

resetting the value of a first location code of the first mobile user as a predetermined value; and

deleting user data of the second mobile user and temporarily storing the user data of the first mobile user in the VLR.

2. (Original) The method as claimed in claim 1, wherein the VLR comprises a location information table.

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3. (Original) The method as claimed in claim 2, wherein the location information table comprises a location code field, a location area identifier (LAI) field, and a Mobile Switch Center (MSC) address field.

4. (Original) The method as claimed in claim 1, wherein the registering step translates the location information of the second location code into a second location code.

5. (Original) The method as claimed in claim 1, wherein an extra field is added to the HLR for storing location codes.

6. (Original) A system for handling mobile database overflow, registering an un-registered mobile user located in a location area comprising a first mobile user sending a registration request and a second mobile user, at least comprising:

a VLR, storing user data of the second mobile user and receiving the registration request of the first mobile user; and

an HLR, processing the registration request of the first mobile user, wherein the VLR determines whether its database thereof is full, the first mobile user is registered to the HLR if the database is not full, user data of the first mobile user is temporarily stored in the VLR, location information of the second mobile user is translated into a second location code if the database is full, the registration request and second location code are transferred to the HLR, the value of a first location code of the first mobile user is reset as a predetermined value, the user data of the second mobile user is deleted, and the user data of the first mobile user is temporarily stored in the VLR.

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7. (Original) The system as claimed in claim 6, wherein the VLR comprises a location information table.

8. (Original) The system as claimed in claim 7, wherein the location information table comprises a location code field, an LAI field, and an MSC address field.

9. (Original) The system as claimed in claim 6, wherein the second location code of the second mobile user is stored in the HLR when the first mobile user is registered to the HLR.

10. (Original) The system as claimed in claim 6, wherein an extra field is added to the HLR for storing location codes.

11. (Currently Amended) A method for handling mobile database overflow, by searching for an overflow user, comprising the steps of:

searching for the mobile user when receiving a call request to a mobile user;

determining whether the value of the location code of the mobile user is a predetermined value;

setting up the call between the caller and the mobile user if the value of the location code is the predetermined value;

obtaining the location information of the mobile user in accordance with the location code and a location information table if the value of the location code is not the predetermined value,

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wherein the location information table comprises a location code field, an LAI field, and an MSC address field; and

re-registering the mobile user for communication.


12. (Original) The method as claimed in claim 11, wherein the step of obtaining the location information of the mobile user further comprises the steps of:

a VLR obtaining the location code corresponding to the mobile user from an HLR;

the VLR looking up the location information table using the location code of the mobile user to obtain an MSC address and an LAI of a location area;

the VLR informing the MSC of the location area where the mobile user resides;

the MSC notifying the BSC of the location area to search for the location of the mobile user;

the BSC obtaining the location of the mobile user by broadcasting to the location area;

the MSC obtaining the location of the mobile user from the BSC;

the VLR obtaining the location of the mobile user from the MSC; and

the VLR notifying the HLR of the location of the mobile user and re-registering the user information in its database.


13. (Cancelled)


14. (Original) The method as claimed in claim 12, wherein an extra field is added to the HLR for storing location codes.


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15. (Currently Amended) A system for handling mobile database overflow to find the location of an overflow user to deliver a call, comprising a mobile user, at least comprising:

a VLR, comprising a location information table; and

an HLR wherein the HLR determines whether the value of the location code of the mobile user is the predetermined value when receiving a call request to the mobile user, the system sets up the call between the caller and the mobile user if the value of the location code is the predetermined value, the location information of the mobile user is obtained in accordance with the location code and a location information table if the value of the location code is not the predetermined value, and the mobile user is re-registered; wherein the location information table comprises a location code field, an LAI field, and an MSC address field.

16. (Original) The system as claimed in claim 15, further comprising a process for obtaining the location information, wherein the HLR sends the location code of the mobile user to the VLR, the VLR looks up the location information table using the location code of the mobile user to obtain an MSC address and an LAI of a location area for the mobile user, the VLR informs the MSC of the location area where the mobile user resides, the MSC notifies the BSC of the location area to search for the location of the mobile user, the BSC obtains the location of the mobile user by broadcasting to the location area, the MSC obtains the location of the mobile user from the BSC, the VLR obtains the location of the mobile user from the MSC, the VLR notifies the HLR of the location of the mobile user and re-registers the user information in its database.

17. (Cancelled)

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18. (Original) The system as claimed in claim 16, wherein an extra field is added to the

HLR for storing the location codes.

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